\_\_\_\_\_\_

Sequence Listing was accepted.

See attached Validation Report.

If you need help call the Patent Electronic Business Center at (866)

217-9197 (toll free).

Reviewer: Durreshwar Anjum

Timestamp: Fri Nov 09 11:16:49 EST 2007

\_\_\_\_\_

## Validated By CRFValidator v 1.0.3

Application No: 10582393 Version No: 2.0

Input Set:

Output Set:

**Started:** 2007-10-24 20:51:36.128

**Finished:** 2007-10-24 20:51:39.217

**Elapsed:** 0 hr(s) 0 min(s) 3 sec(s) 89 ms

Total Warnings: 135

Total Errors: 2

No. of SeqIDs Defined: 135

Actual SeqID Count: 135

Error code		Error Description	on							
W	402	Undefined o	rganism	found	in	<213>	in	SEQ	ID	(1)
E	342	'n' positio	n not de	fined	fo	ound at	POS	5: 6	S SE	QID(1)
W	402	Undefined o	rganism	found	in	<213>	in	SEQ	ID	(2)
E	342	'n' positio	n not de	fined	fo	ound at	POS	S: 6	S SE	QID(2)
W	402	Undefined o	rganism	found	in	<213>	in	SEQ	ID	(3)
W	402	Undefined o	rganism	found	in	<213>	in	SEQ	ID	(4)
W	402	Undefined o	rganism	found	in	<213>	in	SEQ	ID	(5)
W	402	Undefined o	rganism	found	in	<213>	in	SEQ	ID	(6)
W	402	Undefined o	rganism	found	in	<213>	in	SEQ	ID	(7)
W	402	Undefined o	rganism	found	in	<213>	in	SEQ	ID	(8)
W	402	Undefined o	rganism	found	in	<213>	in	SEQ	ID	(9)
W	402	Undefined o	rganism	found	in	<213>	in	SEQ	ID	(10)
W	402	Undefined o	rganism	found	in	<213>	in	SEQ	ID	(11)
W	402	Undefined o	rganism	found	in	<213>	in	SEQ	ID	(12)
W	402	Undefined o	rganism	found	in	<213>	in	SEQ	ID	(13)
W	402	Undefined o	rganism	found	in	<213>	in	SEQ	ID	(14)
W	402	Undefined o	rganism	found	in	<213>	in	SEQ	ID	(15)
W	402	Undefined o	rganism	found	in	<213>	in	SEQ	ID	(16)
W	402	Undefined o	rganism	found	in	<213>	in	SEQ	ID	(17)
W	402	Undefined o	rganism	found	in	<213>	in	SEQ	ID	(18)

## Input Set:

## Output Set:

**Started:** 2007-10-24 20:51:36.128

Finished: 2007-10-24 20:51:39.217

**Elapsed:** 0 hr(s) 0 min(s) 3 sec(s) 89 ms

Total Warnings: 135

Total Errors: 2

No. of SeqIDs Defined: 135

Actual SeqID Count: 135

Err	or code	Error Description
W	402	Undefined organism found in <213> in SEQ ID (19)
W	402	Undefined organism found in <213> in SEQ ID (20) This error has occured more than 20 times, will not be displayed

## SEQUENCE LISTING

```
<110> GREINER BIO-ONE GMBH
      Kranewitter, Wolfgang
      Mittermayr, Christian
      Winner, Florian
      Iftner, Thomas
<120> PRIMERS AND PROBES FOR DETECTING GENITAL HPV GENOTYPES
<130> GRE-106US
<140> 10582393
<141> 2007-10-24
<150> DE 103 57 677.0
<151> 2003-12-10
<160> 135
<170> PatentIn version 3.4
<210> 1
<211> 25
<212> DNA
<213> Human papillomavirus
<220>
<221> misc_feature
<223> r is a or g; w is t or a; k is t or g; i is inosine; y is c or t;
      n is a, t, g, or c; d is a, t, or g
<400> 1
cargcnaaaw wwktdaarga ytgtg
                                                                     25
<210> 2
<211> 25
<212> DNA
<213> Human papillomavirus
<220>
<221> misc_feature
<223> r is a or g; k is t or g; n is a, t, g, or c
<400> 2
                                                                     25
cargcnaaat atktraaaga ttgtg
<210> 3
<211> 25
<212> DNA
```

<213> Human papillomavirus

<220>		
<221>	misc_feature	
<223>	r is a or g; w is t or a	
<400>	3	
cargca	aaat atgtwaagga ttgtg	25
<210>	4	
<211>	25	
<212>	DNA	
<213>	Human papillomavirus	
<220>		
	misc_feature	
	r is a or g; w is t or a	
1225	1 15 4 01 9, 11 5 6 01 4	
<400>	4	
	aaaa ttgtaaarga ttgtg	25
carge	adda cegeddafyd cegeg	23
<210>	5	
<211>	25	
<211>	DNA	
<213>	Human papillomavirus	
\213/	numan papiriomavirus	
<400>	5	
	aaaa tagtaaarga ctgtg	25
caagea	adda cagcadarga cegeg	29
<210>	6	
<211>	25	
<212>	DNA	
<213>		
\Z13/	Human papillomavirus	
<400>	6	
	aaat atgtaaaaga ctgtg	25
cargea	adat atgradadya cigig	23
<210>	7	
<211>	23	
<211>	DNA	
<213>		
	Human papillomavirus	
< 10.0>	Human papillomavirus	
	Human papillomavirus	23
	Human papillomavirus	23
	Human papillomavirus	23
aryggy	Human papillomavirus 7 tsya rccaaaartg rct	23
aryggy <210>	Human papillomavirus  7 tsya rccaaaartg rct	23
<210><211>	Human papillomavirus  7 tsya recaaaartg ret  8 30	23
<210><211><212>	Human papillomavirus  7 tsya recaaaartg ret  8 30 DNA	23
<210><211>	Human papillomavirus  7 tsya recaaaartg ret  8 30	23
<pre></pre>	Human papillomavirus  7 tsya recaaaartg ret  8 30 DNA Human papillomavirus	23
<pre>&lt;210&gt; &lt;211&gt; &lt;212&gt; &lt;213&gt; &lt;400&gt;</pre>	Human papillomavirus  7 tsya recaaaartg ret  8 30 DNA	23

<210>	9	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	9	
ataaaa	cata ggggttctaa aatagaaggc	30
<210>	10	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	10	
actaaac	gttg acagtgtagg taactggaag	30
-		
<210>	11	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
1213/	naman papiliomavilus	
<400>	11	
		30
ccaaacc	acy gaccaageae aggggeaeea	50
<210>	12	
<211>	30	
<211>	DNA	
<213>		
<213>	Human papillomavirus	
<400>	12	
		30
aaaayaı	gtc tattaaacaa tggattaagt	30
<210>	13	
<211>	29	
<211>		
	DNA	
<213>	Human papillomavirus	
- 4.0.0	1.2	
<400>	13	
gggtact	caaa gttgacagtg taggtaact	29
<210>	14	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	14	
gggaaca	agtt attagttatg ttaatteetg	30

```
<211> 30
<212> DNA
<213> Human papillomavirus
<400> 15
                                                                     30
aattgtatag ccattgtagg gccacctgac
<210> 16
<211> 30
<212> DNA
<213> Human papillomavirus
<400> 16
gggccacctg acactgggaa gtcgtgcttt
                                                                     30
<210> 17
<211> 30
<212> DNA
<213> Human papillomavirus
<400> 17
                                                                     30
gggccacctg acactgggaa gtcgtgcttt
<210> 18
<211> 30
<212> DNA
<213> Human papillomavirus
<400> 18
                                                                     30
tgatggaggt gattggaagc aaattgttat
<210> 19
<211> 30
<212> DNA
<213> Human papillomavirus
<400> 19
                                                                     30
tgaaatttct gcaagggtct gtaatatgtt
<210> 20
<211> 30
<212> DNA
<213> Human papillomavirus
<400> 20
                                                                     30
atggaggtga ttggaagcaa attgttatgt
<210> 21
<211> 30
<212> DNA
<213> Human papillomavirus
```

<400>		<u>-</u>
gaccaa	tagt gcaatteetg egataceaae	30
<210>	22	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	22	
caaaca	ttat aggcgagccc aaaaacgaca	30
<210>	23	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	23	
tcctgc	gata ccaacaaata gagtttataa	30
<210>	24	
<211>	28	
<212>	DNA	
<213>	Human papillomavirus	
<400>	24	
ctgcga	tacc aacaaataga gtttataa	28
<210>	25	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	25	
agaaac	gatc tatgtgtatg tcacaatggc	30
<210>	26	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
	Human papillomavirus	
<213>	Human papillomavirus 26	
<400>		30
<400>	26	30
<400>	26	30
<400>	26	30
<400> agaaga	26 gggc gggtcgtgga aggaaattgc	30
<400> agaaga <210>	26 gggc gggtcgtgga aggaaattgc 27	30
<400> agaaga <210> <211>	26 gggc gggtcgtgga aggaaattgc 27 30	30
<400> agaaga <210> <211> <212>	26 gggc gggtcgtgga aggaaattgc 27 30 DNA	30
<400> agaaga <210> <211> <212>	26 gggc gggtcgtgga aggaaattgc 27 30 DNA	30

<210>	28	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	28	
gcacaga	aaac gatctatgtg tatgtcacaa	30
<210>	29	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	29	
gtagato	gtga caaagttagt gacgaaggtg	30
<210>	30	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	30	
tgagcct	tat tagcttttta caaggatgta	30
<210>	31	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	31	
caaagtt	agt gacgaaggtg actggaggga	30
<210>	32	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	32	
acagttt	tta aaagggtgtg ttatatcatg	30
<210>	33	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	33	
gggtgtg	ytta tatcatgtgt aaattctaaa	30
_		

<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	34	
aaaggg	tgtg ttatatcatg tgtaaattct	30
<210>	35	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	35	
attaca	cata gatgtgattt aatagatgat	30
<210>	36	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
. 4 0 0 .		
<400>	36	30
tttaat	gcag tttatgcaag gtgtggttat	30
<210>	37	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
12137	naman papiriomavirab	
<400>	37	
	aata gatgatggag gaaactggaa	30
_		
<210>	38	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	38	
tgcagt	ttat gcaaggtgtg gttatttcat	30
<210>	39	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	39	
ttaata	gatg atggaggaaa ctggaaacat	30
<210>	40	
<211>	28	
<211>	DNA	
<213>	Human papillomavirus	

<400>	40	
aggtgg	acga tgacggtgac tggaggga	28
<210>	41	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	41	
gcattt	ctta caaggagcta ttatatccta	30
<210>	42	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	42	
aaggca	aatg tccatgtctc aatggataaa	30
<210>	43	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	43	
tgtaaa	catt acaagcgagc acaaaaaagg	30
<210>	44	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>		
agcctt	atgc attttttaca gggcacagtt	30
-010-	45	
<210>	45	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	45	
		2.0
tattte	atat gtaaactcca ccagccactt	30
Z2105	4.6	
<210>	46	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
< 4.0.0÷	4.6	
<400>	46	~ ~
aattta	ggtg tagtaaatgt gatgaaggcg	30

<210>	47	
<211>	27	
<212>	DNA	
<213>	Human papillomavirus	
<400>	47	
gaagtgt	gat gaaggegaet ggaaace	27
<010×	40	
<210>	48	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	48	
gaatga	goot gatgoacttt atgoaaggta	30
<210>	49	
<211>	30	
	DNA	
<213>	Human papillomavirus	
\Z13>	numan papiliomavilus	
<400>	49	
cctgate	gcac tttatgcaag gtacaataat	30
<210>	50	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
\213/	numan papiliomavilus	
<400>	50	
tccatgt	gca aacactatag gttagcagaa	30
<210>	51	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
12131	naman papilionavilab	
<400>	51	
acaaat	gaga cgtatgtcta tgggtgcatg	30
<210>	52	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	52	
gacgtat	gtc tatgggtgca tggataaaac	30

<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	53	
cagtaa	attt gaagacacag gaaattggaa	30
<210>	54	
<211>	30	
	DNA	
<213>	Human papillomavirus	
<400>	54	
	gtaa ttagttatgt aaactccagc	30
55	g	
<210>	55	
<211>	30	
	DNA	
	Human papillomavirus	
(210)	numan papiliomavilus	
<400>	55	
	aaca gtggataaaa tttaggagca	30
acacga	anda geggaenan eeenggagen	
<210>	56	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
12107	numan papiliomavilub	
<400>	56	
	aatg aatatgtoto aatggattaa	30
acgeea	and y and any gradena	
<210>	57	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
	F-F	
<400>	57	
	atga atatgtotoa atggattaaa	30
J		
<210>	58	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
2291	1F	
<400>	58	
	ggca ctaaaggaat ttcttaaagg	30
<210>	59	
<210> <211>		
<210><211><211>	59 30 DNA	

<400>	59	
ggtgca	ataa tatcatttgt aaattcaaac	30
<210>	60	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	60	
ggcact	aaag gaatttetta aaggaacace	30
<210>	61	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	61	
agggca	ctaa aggaatttct taaaggaaca	30
<210>	62	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	62	
100	62	
	ctat gtcagcctgg ataaggtata	30
		30
		30
		30
cattat	ctat gtcagcctgg ataaggtata	30
<210>	ctat gtcagcctgg ataaggtata	30
<210><211>	ctat gtcagcctgg ataaggtata  63 30	30
<210> <211> <212>	63 30 DNA	30
<210> <211> <212>	63 30 DNA	30
<210><211><212><213><400>	63 30 DNA Human papillomavirus	30
<210><211><212><213><400>	63 30 DNA Human papillomavirus	
<210><211><212><213><400>	63 30 DNA Human papillomavirus	
<210><211><212><213><400>	63 30 DNA Human papillomavirus	
<210><211><211><212><213><400> <gcacaa.< td=""><td>63 30 DNA Human papillomavirus 63 agaa aatcattatc tatgtcagcc</td><td></td></gcacaa.<>	63 30 DNA Human papillomavirus 63 agaa aatcattatc tatgtcagcc	
<210><211><212><213><400> <gcacaa.< td=""><td>63 30 DNA Human papillomavirus 63 agaa aatcattatc tatgtcagcc</td><td></td></gcacaa.<>	63 30 DNA Human papillomavirus 63 agaa aatcattatc tatgtcagcc	
<210> <211> <212> <213> <400> gcacaaa	63 30 DNA Human papillomavirus 63 agaa aatcattatc tatgtcagcc	
<210> <211> <212> <213> <400> gcacaaa	63 30 DNA Human papillomavirus 63 agaa aatcattatc tatgtcagcc	
<210> <211> <212> <213> <400> gcacaaa	63 30 DNA Human papillomavirus 63 agaa aatcattatc tatgtcagcc	
<210> <211> <212> <213> <400> gcacaaa <210> <211> <212> <213> <400>	63 30 DNA Human papillomavirus 63 agaa aatcattatc tatgtcagcc 64 30 DNA Human papillomavirus	
<210> <211> <212> <213> <400> gcacaaa <210> <211> <212> <213> <400>	63 30 DNA Human papillomavirus 63 agaa aatcattatc tatgtcagcc 64 30 DNA Human papillomavirus	30
<210> <211> <212> <213> <400> gcacaaa <210> <211> <212> <213> <400>	63 30 DNA Human papillomavirus 63 agaa aatcattatc tatgtcagcc 64 30 DNA Human papillomavirus	30
<210> <211> <212> <213> <400> gcacaaa <210> <211> <212> <213> <400>	63 30 DNA Human papillomavirus 63 agaa aatcattatc tatgtcagcc 64 30 DNA Human papillomavirus	30
<210> <211> <212> <213> <400> gcacaaa <210> <211> <212> <410> <211> <212> <213>	63 30 DNA Human papillomavirus 63 agaa aatcattatc tatgtcagcc 64 30 DNA Human papillomavirus 64 ttat ctatgtcagc ctggataagg	30
<210> <211> <212> <213> <400> gcacaaa <210> <211> <212> <213> <410> <210> <211> <212> <213>	63 30 DNA Human papillomavirus 63 agaa aatcattatc tatgtcagcc 64 30 DNA Human papillomavirus 64 ctat ctatgtcagc ctggataagg	30
<210> <211> <212> <213> <400> gcacaaa <210> <211> <212> <211> <212> <213> <100> <211> <212> <213>	63 30 DNA Human papillomavirus 63 agaa aatcattatc tatgtcagcc  64 30 DNA Human papillomavirus  64 tat ctatgtcagc ctggataagg	30
<210> <211> <212> <213> <400> gcacaaa <210> <211> <211> <211> <211> <211> <211> <212> <213>	63 30 DNA Human papillomavirus 63 agaa aatcattatc tatgtcagcc 64 30 DNA Human papillomavirus 64 ctat ctatgtcagc ctggataagg	30

aaacatatga atattggaca atggatacag

30

<210>	66	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	66	
gaaagaa	aaac atatgaatat tggacaatgg	30
<210>	67	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	67	
ttaatta	aggt tcttaagtgg atgtgtaata	30
<210>	68	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	68	
taaagca	atgt atgtagcaag gtggatgatg	30
,		
<210>	69	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	69	
	atg aaacaatgga taaagcatgt	30
, ,		
<210>	70	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
	* *	
<400>	70	
	gtat gtagcaaggt ggatgatggt	30
J :		
<210>	71	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
-	* *	
<400>	71	
	atg gtcctccaaa cacgggtaaa	30
geedeet	-acy goodoodaa cacyyyeaaa	20

<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	72	
aaacaa	tgga taaagcatgt atgtagcaag	30
<210>	73	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	73	
ttagtt	attt atggtcctcc aaacacgggt	30
<210>	74	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	74	
ttagct	tttt aggaggtgta gtgctatcat	30
<210>	75	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	75	
ttgtga	ttta gtagaggagg aaggtgagtg	30
<210>	76	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
. 100		
<400>	76	2.0
cgttgt	gatt tagtagagga ggaaggtgag	30
<210>	77	
<210>	30	
<211>		
	DNA Human papillomavirus	
<213>	Human papillomavirus	
<400>	77	
		30
catcgttgtg atttagtaga ggaggaaggt 30		
<210>	78	
<211>	30	
	30	
<212>	DNA	

	78	
gggcac	aaca gcaacaaatg aatatgtgcc	30
<210>	79	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	79	
	agca acaaatgaat atgtgccagt	30
<210>	80	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	80	
ctgttt	ggta ctttgtggac cgccaaatac	30
<210>	81	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	81	
	gggt ctgtcatttc atttgtgaat	30
	555 5 5-5	
<210>	82	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	82	
acattt	ttta aaaggatgca ttatttcata	30
<210>	83	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	83	
cataat		30
cgtggt	atga caatgggaca atggatacaa	30
cgtggt		30
	atga caatgggaca atggatacaa	30
<210>	atga caatgggaca atggatacaa 84	30
<210> <211>	atga caatgggaca atggatacaa 84 30	30
<210> <211> <212>	84 30 DNA	30
<210> <211>	atga caatgggaca atggatacaa 84 30	30
<210> <211> <212> <213>	84 30 DNA Human papillomavirus	30
<210> <211> <212> <213> <400>	84 30 DNA	30

<210>	85	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	85	
aggatgo	catt atttcatatg taaattccaa	30
<210>	86	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	86	
aaagcgt	ggt atgacaatgg gacaatggat	30
<210>	87	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	87	
agcctgo	ctac attttttaca aggaactgta	30
<210>	88	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	88	
gattaca	acat agaggccgca aggtggcaga	30
<210>	89	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	89	
attacac	cata gaggeegeaa ggtggeagae	30
<210>	90	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	90	
agtggat	tac acatagaggc cgcaaggtgg	30

<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	91	
acagtg	gatt acacatagag gccgcaaggt	30
<210>	92	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	92	
gtacca	tta ttagtgccct taaattgttt	30
<210>	93	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	93	
ttacgg	acca agcgacacag ggaagtcgct	30
<210>	94	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	94	
tacgga	ccaa gegacacagg gaagtegeta	30
<210>	95	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	95	
gagcct	tata aattttttcc aagggtcagt	30
107.0		
<210>	96	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
< 400:		
<400>	96	2.0
ccttat	aaat tttttccaag ggtcagtcat	30
<210>	97	
<210>	97 30	
<211>	DNA	

<213> Human papillomavirus

<400>	97	
attacaa	aaag ggcacagcaa cagcaaatga	30
<210>	98	
<211>	30	
<212>		
	DNA	
<213>	Human papillomavirus	
<400>	98	
atggagg	gaga ctggagaaca atagtaaagc	30
<210>	99	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
\213/	Indicati papitionavitus	
- 100-		
<400>	99	
aagttgt	tatg gtaatatgcg gaccaccaaa	30
<210>	100	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
	• •	
<400>	100	
		30
Caaggai	cgtg taatatcata tgtaaacgcc	50
<210>	101	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	101	
aggaga	ctgg agaacaatag taaagctatt	30
<210>	102	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	102	
gttgtat	eggt aatatgegga eeaccaaaca	30
<210>	103	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	103	
	aaat gtcaatgccg caatggatta	30

<210>	104	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	104	
cgggcac	caaa aacgacaaat gtcaatgccg	30
<210>	105	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	105	
tcaatgo	ccgc aatggattaa atttagatgc	30
<210>	106	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	106	
atggcg	caat ggattaggtt tagatgtgat	30
<210>	107	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	107	
aaatgad	ctat ggcgcaatgg attaggttta	30
<210>	108	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	108	
attaggt	tta gatgtgataa atgtgacgat	30
<210>	109	
<211>	30	
<212>	DNA	
<213>	Human papillomavirus	
<400>	109	
taaattt	ata caaggtgtag ttatttcgta	30

```
<211> 30
<212> DNA
<213> Human papillomavirus
<400> 110
atgtgattta actaatgatg gtggtaattg
```

<210> 111

<211> 30

<212> DNA

<213> Human papillomavirus

<400> 111

taatgatggt ggtaattgga

30